CHALYKH, A.Ye., aspirant; ASENIN, R.M., kand. tekhn. nauk, dotsent

Optical methods for the study of diffusion. Nauch. trudy MTILP no.30:192-199 '64.

Interference micromethod for the study of diffusion in the system polymer-solvent. Ibid.:200-206

(MIRA 18:6)

1. Kafedra fizicheskoy i kolloidnoy khimii Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

CHALYKH, A.Ye.; VASENIN, R.M.

Diffusion of solvents in polyisobutylene. Vysokom. soed. 7 no.4:586-592 Ap '65. (MIRA 18:6)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti.

VASENIN, R.M.; CHALYKH, A.Ye.; KOROBKO, V.I.

Moving boundary problem in diffusion in the polymer - solvent systems. Vysokom. soed. 7 no.4:593-600 Ap '65.
(MIRA 18:6)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti.

CHALYKH, A.Ye.; VASENIN, R.M.

Diffusion in the system polyisobutylene - solvents studied by the interferential micromethod. Dokl. AN SSSR 161 no.5: 1146-1148 Ap '65. (MIRA 18:5)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti. Submitted October 1, 1964.

GROMOV, V.K.; CHAIYKH, A.Ye.; VASENIN, R.M.; VOYUTSKIY, S.S.

Diffusion of paraffin in saturated carbochain polymers. Vysokom. soed. 7 no.5:802-807 My '65. (MIRA 18:9)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V.Lomonosova i Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti.

GROMOV, V.K.; VASENIN, R.M.; CHALYKH, A.Ye.; VOYUTSKIY, S.S.

Effect of the molecular weight of hydrocarbons on their diffusion in polymers. Dokl. AN SSSR 165 no.2:347-350 N '65.
(MIRA 18:11)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V. Lomonosova. Submitted April 13, 1965.

L 31980-66 EWT(m)/T/EWP(j) IJP(c) WW/RM

ACC NR: AR6011875 SOURCE CODE: UR/0081/65/000/016/S009/S010

AUTHOR: Chalykh, A. Ye.; Vasenin, R. M.

57
B

ORG:

TITLE: Interference micromethod of investigating diffusion in a polymer-solvent system

SOURCE: Ref. zh. Khimiya, Abs. 16S75

TOPIC TAGS: polymer, polyvinyl alcohol, diffusion, interferometer, multibeam interferometer

ABSTRACT: Based on the phenomenon of multibeam interfernece from two surfaces of a plate, a device (interferometer) has been designed for studying the diffusion kinetics of solvents in transparent polymers. The device consists of a diffusion cell, a light source, an optical system, and a microscope. The original paper includes an overall view of the device and a cutaway view of its optical system and diffusion cell. The procedure is explained on the basis of the diffusion of water in polyvinyl alcohol; an interferogram of the process is inclused. It is shown that in the system polyvinyl alcohol-water the dependence of the coefficient of interdiffusion on the concentration of the water is in the form of a curve with a maximum. Yu. Kercha. [Translation of abstract]

NT

Card 1/1 LC

L 31107-66 EWT(m)/EWP(j)/T WW/JW/WE/PM

ACC NR: AP5028282 (A) SOURCE CODE: UR/0020/65/165/002/0347/0350

AUTHOR: Gromov, V. K.; Vasenin, R. M.; Chalykh, A. Ye.; Voyutskiy, S. S.

ORG: Moscow Institute of Chemical Precision Technology im. M. V. Lomonosov (Moskovskiy institut tonkoy khimicheskoy tekhnologii)

TITLE: Effect of the molecular weight of hydrocarbons and their diffusion in polymers

SOURCE: AN SSSR. Doklady, v. 165, no. 2, 1965, 347-350

TOPIC TAGS: hydrocarbon, molecular weight, polymer, chemical reaction

ABSTRACT: The diffusion coefficient (D)of hydrocarbons in polymers was studied by changing their molecular weight for 1-2 orders. The following systems were studied (polymer, hydrocarbon(s), temperature); polyisobutylene (I), octane, or dodecane, or hexadecane, 20-120C; I, paraffin (molecular weight~325), 60-100C; I, ceresine, 100-130C; I, polyethylene (molecular weight~2000 or~5000), 100-130C; atactic polypropylene (II), paraffin (molecular weight ~325), 60-100C; II, ceresine, 100-130C, and II, polyethylene (molecular weight~2000 or~5000), 100-130C. In the systems studied, D depended on the molecular weightof hydrocarbons, according to the equation $D=KM^{-\gamma}$, where K and γ were constant and M was the molecular weight; γ depended on the concentration of the hydrocarbon in a system and on the nature of the polymer. At 100-20C, γ was ~3 or ~2 for I or II, respectively. For polyethylenes, γ was ~

Card 1/2 UDC: 678.01:53

L 31107-66

ACC NR: AP5028282

2.5 and ~1.5 at 120 and 130C, respectively. In this case the temperature dependence of γ, was probably related to the concentration of the areas of ordered crystals in the polyethylenes. At higher temperatures, the mobility of chains increased and γ became smaller. At 130C, holding other factors constant, the value of γ increased with the polymers: polyethylene < atactic propylene < polyisobutylene. At 120C, D for a hydrocarbon of a molecular weight of 2.10^4 was $\sim 6.10^{-12}$ or $\sim 2.10^{-10}$ cm^2/sec. In I or II, respectively. With an increase of hydrocarbon concentration in a system, the activation energy of the diffusion process decreased. The paper was presented by Academician S. S. Medvedev, 13 Apr. 65. Orig. art. has: 4 figs.

SUB CODE: 20,07/ SUBM DATE: 09Apr65/ ORIG REF: 009/ OTH REF: 007

Card 2/2

L 38850-66 EWP(j)/EWT(m)/T RM

ACC NR: AR6011874 SOURCE CODE: UR/0081/65/000/016/S009/S009

43
B

AUTHOR: Chalykh, A. Ye.; Vasenin, R. M.

TITLE: Optical methods of studying diffusion

SOURCE: Ref. zh. Khimiya, Abs. 16S74

REF SOURCE: Nauchn. tr. Mosk. tekhnol. in-t legkoy prom-sti, vyp. 30, 1964, 192-199

TOPIC TAGS: fluid diffusion, optic method, optic interference, colorimetry, refractometry

ABSTRACT: Optical methods suitable for studying diffusion in the polymer - solvent system were studied over a wide concentration range. On the basis of the physical processes underlying these methods, the latter were divided into three groups: refractometric, interference, and colorimetric methods. The advantages and disadvantages of the individual methods are shown by comparison. Optical shcemes due to Lamm, Staube and Labhart, characterizing the various refractometric methods, and also Longsworth's scheme, characterizing one of the interference methods, are shown and described. Bibliography of 30 titles. Yu. Kercha. [Translation of abstract]

SUB CODE: 20

Card 1/1

CHALYKH, D.D.

Duodenal ulcer perforating three times. Khirurgiia Supplement: 31-32 '57. (MIRA 11:4)

1. Iz Krasnogorskoy rayonnoy bol'nitsy Moskovskoy oblasti.
(DUODENUM--ULCERS)

CHERNTSOV, O.M.; CHALYKH, E.A.

Derivatives of 2-mercaptobenzothiazole and dithiocarbamic acid. Part 1: Reactions of benzothiazyl-2-mercaptides. Zhur.ob.khim. 33 no.6:1958-1964 Je '63. (MIRA 16:7)

1. Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley.

(Benzothiazole) (Mercaptides)

CHERNTSOV, O.M.; CHALYKH, E.A.; GUR'YANOVA, Ye.N.

Derivatives of 2-mercaptobenzothiazole and dithiocarbamic acids. Part 2: Transformations of benzothiazolyl esters of dithiocarbamic acids. Zhur. ob. khim. 34 no. 3:952-955 Mr '64. (MIRA 17:6)

1. Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley.

CHERNTSOV, O.M.; CHALYKH, E.A.

Derivatives of 2-mercaptobenzothiazole and dithiocarbamic acids. Part 4: Reactions of zinc salts with N,N-disubstituted dithiocarbamic acids with 2-chlorobenzothiazoles. Zhur. org. khim. 1 no.4:765-767 Ap '65. (MIRA 18:11)

1. Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley.

ACC NR: AP7002730 (A, N) SOURCE CODE: UR/0065/67/000/001/0049/0051

AUTHOR: Stekhun, A. I.; Chalykh, N. D.

ORG: New NPZ, Ufa (Novo-Ufimskiy NPZ)

TITLE: Jet fuel cleanliness needs greater attention

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 1, 1967, 49-51

TOPIC TAGS: jet fuel, fuel contamination, ~~jet fuel contamination prevention~~

ABSTRACT:

This article is submitted as a contribution to the current discussion on the prevention of jet-fuel contamination. The authors review the state-of-the-art on the basis of Soviet and Western literature, evaluate certain test methods for fuel cleanliness on the basis of their experimental data, and make recommendations for the development and introduction into practice of more effective test methods. These recommendations are as follows: 1. For purposes of collecting data, the use of the gravimetric test method for particulate contaminants (GOST 10557-63) and of the test method for particulate contaminants involving fuel filtration on an AzNII-FT-2ℓ apparatus (GOST 9298-59) should be made optional. At the same time, the current test method for particulate contaminants involving visual observation of a fuel-water interface (GOST 10227-62) should

Card 1/2 UDC: 665.521.3

ACC NR: AP7002730

remain in force. 2. Specifications should be established for the particulate contaminant content of jet fuel: a) at the point of production, and b) at the point of use. 3. It is technically feasible for refineries to produce a fuel with a particulate contaminant content of ≤ 0.0003%. The specifications for the particulate contaminant content at the point of use should be brought down to 0.00010—0.00015%. This degree of cleanliness also becomes realistic when airfield filtration facilities are introduced on a wide scale and when fuel filtration in the refueling unit prior to aircraft fueling is made mandatory. [WA-28]

SUB CODE: 21, 07/ SUBM DATE: none/ ORIG REF: 011/ OTH REF: 001/
ATD PRESS: 5112

Card 2/2

S/137/60/000/012/041/041
A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1960, No. 12, p. 273, # 30266

AUTHORS: Naymark, L.E., Chalykh, P.N., Kokanov, A.

TITLE: Quantitative Spectrographical Determination of Beryllium and Scandium in Products of Processing Beryllium-Containing Ores

PERIODICAL: Izv. AN KazSSR, Ser. metallurgii, obogashcheniya i ogneuporov, 1959, No. 1 (4), pp. 85 - 89 (Kaz. summary)

TEXT: Samples and standards were mixed at a 1 : 1 ratio with a buffer mixture composed of carbon powder with 1% BaO and 2% Cr_2O_3 (Ba as a comparison element for Be, and Cr for Sc). After preliminary roasting in an electrode, acting as a cathode, the mixture was burnt in the anode of a d-c arc at 10 amp. The time of full burning out of the sample was 2 - 3 minutes. An ИСП-22 (ISP-22) spectrograph was used. The analytical pairs of lines and the ranges of concentrations to be determined are presented. The standards were prepared by the synthetical method on the base of a mixture of $CaSO_4$ and oxides of Si, Al, Mg and Fe.

Card 1/2

S/137/60/000/012/041/041
A006/A001

Quantitative Spectrographical Determination of Beryllium and Scandium in Products of Processing Beryllium-Containing Ores

Be and Sc were introduced into the standards in the form of oxides. Samples with a high Be and Sc content were, prior to the analysis, diluted with a mixture on the base of which the standards were prepared. The method was developed on specimens of very variegated composition and ensures the determination of 0.0003 - 0.3% Be and 0.001 - 1% Sc at a mean relative error of ± 8%. There are 7 references.

A. Sh.

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

S/137/62/000/003/191/191
A154/A101

AUTHORS: Naymark, L. E.; Akisheva, R. Z.; Chalykh, P. N.

TITLE: The effect of current intensity and rate of evaporation of the sample on the intensity of the lines in the spectrum of an a.c. carbon arc.

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 14, abstract 3 K 76 ("Izv. AN KazSSR, Ser. metallurgii, obogashcheniya i ogneuporov," vyp. 2, 97 - 103; Kaz. summary) 1961.

TEXT: Tests were made with SiO_2- and NaCl-based mixtures containing hundredths and tenths of a percent of In, Tl, Ga, Ge, As, Cd, Te, Sn, Pb, and Zn, as well as 1.5 % of Cu in the form of oxides and sulfides. Weighed 20 mg samples were placed in the channel of the bottom carbon arc electrode and ignited until total evaporation of impurities. АИСП-22 (ISP-22) spectrograph was used. Upon increase of the channel depth from 2 to 6 mm, the "idle" burning time of the arc noticeably increases, but the evaporation time of the elements changes little. The evaporation time dropped by 3 - 5 times when the bottom electrode was cooled

Card 1/3

by a massive metal collet. It was found that upon ignition of the arc, the temperature of the electrodes increases rapidly for 20 - 40 sec. at all points at a constant distance from the discharge until it reaches a constant value, irrespectively of the sample's composition. The temperature attained by the electrode depends most of all on the ionization potentials of the elements entering the discharge and on the power of the arc; the sample's boiling point is of secondary importance. The heating-up rate and temperature of the electrodes increase considerably with increasing current intensity. The temperature of the top electrode does not depend on the nature of the substance introduced into the bottom electrode. A series of empirical formulae were proposed for describing these regularities. The dependence of the intensity of the lines I on the current intensity i was examined at 5 - 20 amps. It was found that $I = i^k$, where $k =$ 1.3 - 1.55. It is supposed that the increase of I with the growth of i is due to the observed widening of the discharge column. It was found that at a constant exposure time the constant background intensifies with growing i at the same rate as I. However, at large i values considerable reduction of the exposure time is possible. By using this effect the sensitivity may be increased by several times.

Card 2/3

The effect of current intensity .....

S/137/62/000/003/191/191
A154/A101

With growing i the influence of the effect of self-absorption of the lines begins to manifest itself at lower concentrations. Therefore, if the given element does not have weaker lines, it is more expedient to determine increased contents of it at smaller i values. Using too deep channels in the electrodes merely increases the exposure time without raising the sensitivity of the analysis. There are 6 references.

A. Shteynberg

[Abstracter's note: Complete translation]

Card 3/3

ACC NR: AP6029018 SOURCE CODE: UR/0413/66/000/014/0021/0021

INVENTOR: Chalykh, S. N.; Kafarov, V. V.; Vigdorov, A. S.; Savost'yanov, N. I.; Gromova, I. I.; Podgorbunskikh, M. T.; Kolesnikov, A. S.; Luferov, V. Ye.

ORG: none

TITLE: Preparation of salts of dithiocarbamic acid derivatives. Class 12, No. 183735. [announced by Scientific Research Institute of Organic Intermediates and Dyestuffs (Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley)]

SOURCE: Izobret prom obraz tov zn, no. 14, 1966, 21

TOPIC TAGS: sodium dithiocarbamate, alkyl dithiocarbamate, dialkyl dithiocarbamate, carbamic acid, organic salt

ABSTRACT: Usually, salts of dithiocarbamic acid derivatives of the general formula:

(where R_1 and R_2 are CH_3 or C_2H_5; Me is Na) are obtained by the reaction of carbon disulfide with a solution of an amine in the presence of alkalies. To improve the technological process and to increase the yield and quality of the final product, the process is carried out in dilute solutions of amines with a 5% excess of CS_2

Card 1/2 UDC: 547.496.2.07

ACC NR: AP6029018

at 25—45°C in the presence of surfactants with subsequent removal of CS_2 in vacuo (350 mm Hg). [WA-50; CBE No. 11]

SUB CODE: 07/ SUBM DATE: 21Jun65/

Card 2/2

ACC NR: AP6029018 SOURCE CODE: UR/0413/66/000/014/0021/0021

INVENTOR: Chalykh, S. N.; Kafarov, V. V.; Vigdorov, A. S.; Savost'yanov, N. I.; Gromova, I. I.; Podgorbunskikh, M. T.; Kolesnikov, A. S.; Luferov, V. Ye.

ORG: none

TITLE: Preparation of salts of dithiocarbamic acid derivatives. Class 12, No. 183735. [announced by Scientific Research Institute of Organic Intermediates and Dyestuffs (Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley)]

SOURCE: Izobret prom obraz tov zn, no. 14, 1966, 21

TOPIC TAGS: sodium dithiocarbamate, alkyl dithiocarbamate, dialkyl dithiocarbamate, carbamic acid, organic salt

ABSTRACT: Usually, salts of dithiocarbamic acid derivatives of the general formula:

(where R_1 and R_2 are CH_3 or C_2H_5; Me is Na) are obtained by the reaction of carbon disulfide with a solution of an amine in the presence of alkalies. To improve the technological process and to increase the yield and quality of the final product, the process is carried out in dilute solutions of amines with a 5% excess of CS_2

Card 1/2 UDC: 547.496.2.07

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at 25—45°C in the presence of surfactants with subsequent removal of CS_2 in vacuo (350 mm Hg). [WA-50; CBE No. 11]

SUB CODE: 07/ SUBM DATE: 21Jun65/

Card 2/2

CHALYKH, Yevgeniy Fedorovich; VESELOVSKIY, V.S., redaktor; ABRAMOVICH, A.V., redaktor; BEKKER, O.G., tekhnicheskiy redaktor.

[Manufacturing electrodes] Proizvodstvo elektrodov. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1954. 328 p. [Microfilm]
(Electrodes) (MLRA 8:2)

VASIL'YEV, M.G.; CHALYKH, Ye.F.

Investigation of the cohesive properties of coal-tar pitch.
Trudy MKHTI no.28:115-120 '59. (MIRA 13:11)
(Coal tar)

CHALYKH, Ye.F.; GEYDYSH, L.S.

Use of synthetic resins as binders for electrode carbon products.
Trudy MKHTI no.28:121-124 '59. (MIRA 13:11)
(Electrodes, Carbon) (Resins, Synthetic)

S/136/62/000/008/002/004
E202/E335

AUTHOR: Chalykh, A.Ye.

TITLE: Impregnation of graphite with hydrocarbons

PERIODICAL: Tsvetnyye metally, no.8, 1962, 58-61

TEXT: The permeability of graphite to gases may be reduced by an order of one million times if a suitable process is chosen in which a hydrocarbon such as methane or benzene, diluted in an inert gas such as argon or nitrogen, is diffused under highly controlled conditions of temperature and concentration. In the present series of experiments the author used a temperature range of 900-1300°C, a benzene concentration of 5, 10 and 15% and a methane concentration of 40 and 60% v/v. Impregnation was carried out on small graphite crucibles which were placed in a quartz chamber with a high-frequency coil wound on the quartz chamber. The crucible was rotated to assist uniform permeation of the hydrocarbon, thus introducing a centrifugal force. The results confirm that too high a rate of deposition tends to produce soot instead of a fine, thin and stable silver-like film. However, with too low a flow velocity, the impregnating deposits

Card 1/2

tend to be uneven. It was found that the use of methane leads to a stronger hydrocarbon film and gives also a better degree of impregnation. The method applies only to laboratory experiments. There are 5 figures and 1 table.

L 19051-63 EPR/EPF(c)/EWP(q)/EWT(m)/BDS AFFTC/ASD Ps-4/Pr-4 WH/WW/JD/K
PHASE I BOOK EXPLOITATION SOV/6479

Chalykh, Yevgeniy Fedorovich

Tekhnologiya uglegrafitovykh materialov (Technology of Carbon and Graphite Materials) Moscow, Metallurgizdat, 1963. 304 p. 2640 copies printed.

Reviewer: V. P. Sosedov, Candidate of Technical Sciences;
Ed.: B. K. Dymov; Ed. of Publishing House: M. S. Arkhangel'skaya;
Tech. Ed.: M. K. Attopovich (Deceased).

PURPOSE: This book is intended to serve as a manual for students of metallurgy and chemical technology in schools of higher technical education (VTUZ). It can also be of use to engineers, metallurgists, and technicians.

COVERAGE: The author discusses the theory and practice of the manufacture of carbon and graphite products. The text is based on 1) lectures delivered by the author at the Moscow Institute

Card 1/[illegible]

L 19051-63
Technology of Carbon (Cont.) SOV/6479

of Chemical Technology imeni D. I. Mendeleyev, 2) the author's data on research and manufacturing, 3) material available in the literature, 4) proceedings of the All-Union Aluminum-Magnesium Institute, and 5) data from plant laboratories. The technology of the production of artificial carbon and graphite products is described in detail. Topics covered are: selection of raw materials and their preparation, production formulas, batch preparation, press forming, roasting, graphitization, impregnation, and sealing. The industrial carbon and graphite materials described here are used in steel and aluminum metallurgy, electrical engineering, chemical engineering, atomic energy, and rocketry. The text also mentions the refining of graphite for the preparation of high-purity products (impurities 10^{-8}—10^{-10}%) for use in nuclear engineering, semiconductors, and spectrography. Soviet and non-Soviet references are given at the end of each chapter.

Card 2/

L 6874-65 EWG(j)/EWT( )/EPF(c)/K/EPR/EWP(q)/EWP(b) Pr-4/Ps-4 ASD(m)-3
ACCESSION NR: AR4041674 JD/WW/WE S/0081/64/000/007/P013/P013

SOURCE: Ref. zh. Khimiya, Abs. 7P83

57

AUTHOR: Chaly*kh, Ye. F.; Rozeman, I. M.

TITLE: Effect of atmospheric oxygen on the process of firing of fine-grained graphite materials

CITED SOURCE: Tr. Mosk. khim.-tekhnol. in-ta im. D. I. Mendeleyeva, vy*p. 42, 1963, 29-34

TOPIC TAGS: graphite, graphite material, firing, atmospheric oxygen

TRANSLATION: There are given comparative data on physico-mechanical properties of graphite materials obtained on the basis of mixtures of coal tar pitch, petroleum coke and graphite during heating in N_2 medium at 1,000° at a rate of 6.5°min. There is studied the effect on properties of these materials of preliminary heating of mixtures at 200 - 250° in current of air, CH_4, and N_2, depending on temperature of gas output and time of treatment. Treatments in current of CH_4 ani N_2, gave similar results, whereas, dus to oxygen polymerization and condensation of bonding

Card 1/2

L 6874-65
ACCESSION NR: AR4041674

components, treatment in air at 250° for 2 hours led to increase of coke yield by 10 - 15% (in conversion to pitch) and increase of density and mechanical strength of articles after firing.

SUB CODE: MT, GC ENCL: 00

Card 2/2

CHALYKH, Ye.F.; ROZENMAN, I.M.

Kinetics of the oxidation of green pitch-coke specimens made by cold pressing. TSvet. met. 37 no.6:44-47 Je '64.
(MIRA 17:9)

IONOV, A.N.; SITNIKOV, K.I.; LIFANOVA, A.A.; Prinimali uchastiye: VORONIN, A.D.; SLAVINA, A.Yu.; GORDEYEV, M.I.; CHALYKH, Ye.G.; GORDEYEV, P.A., red.; KASIMOV, D.Ya., tekhn.red.

[Album of drawings for machinery, mechanized equipment, implements, attachments, and instruments for finishing large-panel apartment houses] Al'bom chertezhei mashin, mekhanizirovannykh ustanovok, inventaria, prisposoblenii i instrumentov dlia otdelki krupnopanel'nykh zhilykh domov. Moskva, Gostroiizdat. No.2. 1963. 210 p. (MIRA 17:2)

1. Gosudarstvennyy proyektnyy institut po organizatsii sel'skogo stroitel'stva i okazaniyu tekhnicheskoy pomoshchi.

LARIN, T.V.; DEVYATKIN, V.P.; KRIVOSHEYEV, V.N.; NAUMOV, I.V.; CHALYKH, Ye.I.; SELIKHOVA, T.A., inzhener, redaktor; KHITROV, P.A., tekhnicheskiy redaktor.

[Seamless rolled wheels for railroad cars] Tsel'nokatannye zheleznodorozhnye kolesa. Moskva, Gos.trans. zhel-dor.izd-vo. 1956. 187 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut zheleznodorozhnogo transporta. Trudy, no.124). (MLRA 9:11)

(Wheels)

CHALYKH, Ye.I., inzhener (Dnepropetrovsk)

Speed up the change-over to seamless rolled wheels on all cars.
Zhel.dor.transp. 39 no.9:81 S '57. (MIRA 10:10)

1. Starshiy inspektor Glavnogo upravleniya vagonnogo khozyaystva Ministerstva putey soobshcheniya na Dnepropetrovskom metallurgicheskom zavode.

(Car wheels)

SOV/137-58-8-16886 D

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 95 (USSR)

AUTHOR: Chalykh, Ye.I.

TITLE: An Investigation of the Causes of Spoilage in the Mass Production of Seamless Rolled Wheels (Issledovaniye prichin braka pri massovom proizvodstve zheleznodorozhnykh tsel'nokatanykh koles)

ABSTRACT: Author's dissertation for the degree of Candidate of Technical Sciences, presented to the Vses. n.-i. in-t zh.-d. transp. (All-Union Scientific Research Institute for Railroad Transportation), Moscow, 1958.

An investigation of the causes of spoilage in the mass production of seamless rolled wheels (W), made on the basis of a statistical study of a large amount of data from acceptance tests and analysis of production factors, makes it possible to advance a number of specific suggestions the introduction of which has resulted in improving the quality of the W and reducing rejects. It is established that the poor plastic qualities of the steel and low σ_b values existing concurrently are explained by unsatisfactory deoxidation of the steel and unsatisfactory heat treatment of the W after the heating for rolling. It is

Card 1/2

An Investigation of the Causes of Spoilage (cont.)

recommended that the final deoxidation of the steel be done by silicon-calcium, and that the heat treatment be based upon the terminal W-rolling temperature. Analysis of the statistical data of acceptance tests for seamless W with consideration of operating data has made it possible to determine well-founded norms for the chemical composition and mechanical properties of wheel steel for the setting up of a new standard. The study reveals a number of principles governing the relationship between W quality and various fabricational factors, and these were taken into consideration in compiling the W-manufacture flow sheet. Introduction of these measures made it possible to reduce overall W rejects for mechanical reasons by more than 84%.

ASSOCIATION: Vses. n.-i. in-t zh.-d. transp. (All-Union Scientific Research Institute for Railroad Transportation), Moscow

S.G.

1. Steel—Processing 2. Rolling mills—Performance
3. Wheels—Production 4. Industrial production—Effectiveness

CHALYKH, Ye.I., kand.tekhn.nauk

Quality of seamless rolled wheels manufactured according to the new standards. Vest. TSNII MPS 17 [i.e. 19] no.7:57-60 '60. (MIRA 13:11)

(Car wheels--Standards)

CHALYKH, Ye.I.

Introduction of the new standard for seamless rolled wheels. Standartizatsiia 24 no.9:41-43 S '60. (MIRA 13:9)
(Car wheels--Standards)

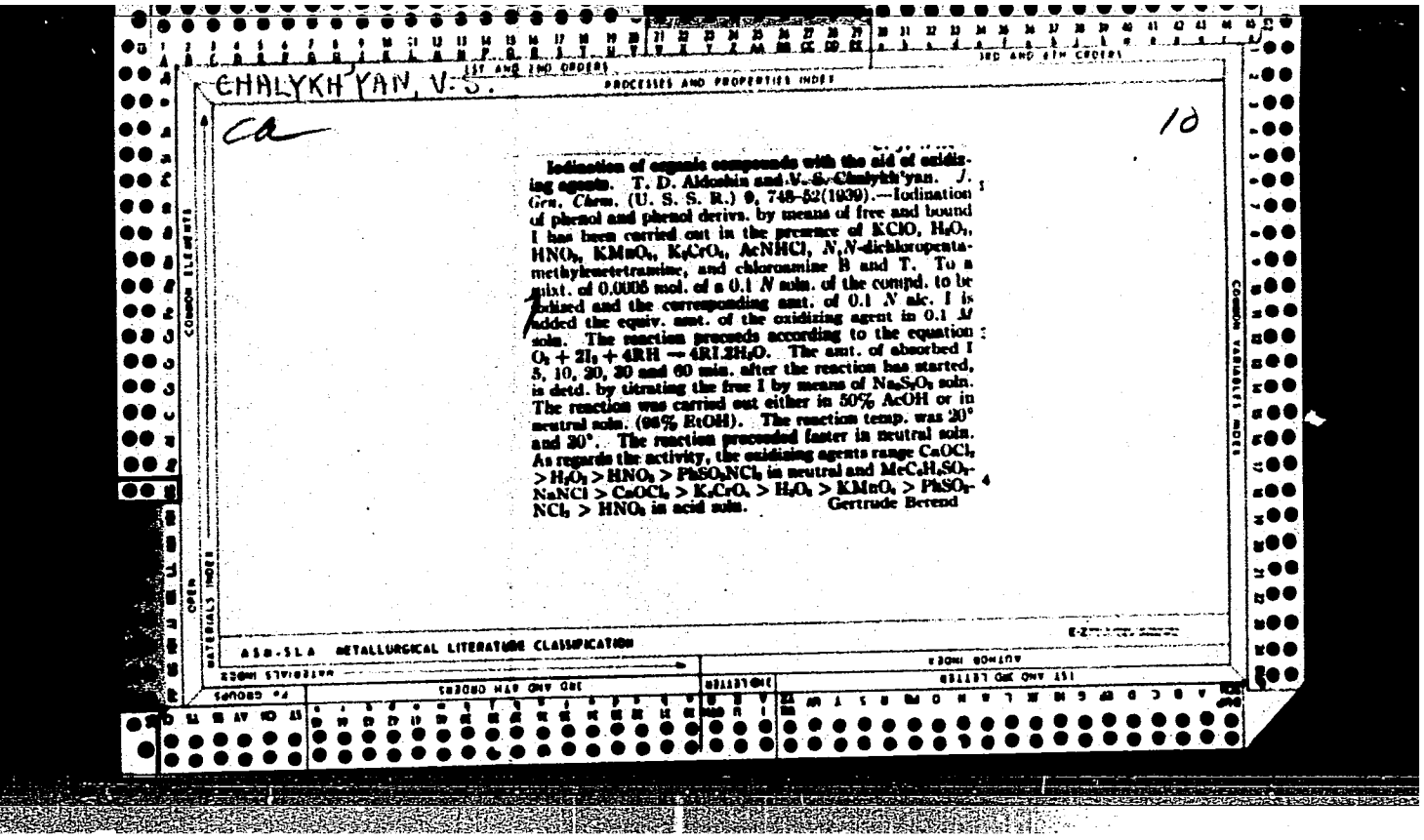
LARIN, T.V., doktor tekhn.nauk, prof.; DEVYATKIN, V.P., kand.tekhn.nauk; CHALYKH, Ye.I., kand.tekhn.nauk

New method of testing seamless rolled wheels on a ram impact machine. Vest.TSNII MPS 21 no.4:47-49 '62. (MIRA 15:6)
(Wheels—Testing)

CHALYKH'YAN, E.V.

Palynological characteristics of Quarternary sediments from the Shiderty Valley. Mat. po ist. fauny i flory Kazakh. 4:238-243 '63. (MIRA 16:9)

(Shiderty Valley--Pollen, Fossil)



CHALYKH'YAN, V. S.

Ca

10

Iodination of organic compounds with the aid of oxidising agents. T. D. Aldoshin and V. S. Chalykh'yan. *J. Gen. Chem.* (U. S. S. R.) 9, 748–52(1939).—Iodination of phenol and phenol derivs. by means of free and bound I has been carried out in the presence of KClO, H_5IO_6, HNO_3, $KMnO_4$, K_2CrO_4, AcNHCl, *N,N*-dichloropentamethylenetetramine, and chloramine B and T. To a mixt. of 0.0005 mol. of a 0.1 *N* soln. of the compd. to be iodized and the corresponding amt. of 0.1 *N* alc. I is added the equiv. amt. of the oxidizing agent in 0.1 *M* soln. The reaction proceeds according to the equation: $O_2 + 2I_2 + 4RH = 4RI.2H_2O$. The amt. of absorbed I 5, 10, 20, 30 and 60 min. after the reaction has started, is detd. by titrating the free I by means of $Na_2S_2O_3$ soln. The reaction was carried out either in 50% AcOH or in neutral soln. (98% EtOH). The reaction temp. was 20° and 30°. The reaction proceeded faster in neutral soln. As regards the activity, the oxidising agents range $CaOCl_2 > H_5IO_6 > HNO_3 > PhSO_2NCl_2$ in neutral and $MeC_6H_4SO_2NaNCl > CaOCl_2 > K_2CrO_4 > H_5IO_6 > KMnO_4 > PhSO_2NCl_2 > HNO_3$ in acid soln. Gertrude Berend

CHALYSHEV, V.Ch.

Find of Triassic fishes and stegocephalians in the northern part of the cis-Ural region. Dokl. AN SSSR 136 no.4:904-906 F '61.
(MIRA 14:1)

1. Institut geologii Komi filiala Akademii nauk SSSR. Predstavleno akademikom A.L. Yanshinym.
(Pechora Basin—Fishes, Fossil)
(Pechora Basin—Stegocephali)

15-57-12-16785

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 12, p 12 (USSR)

AUTHOR: Chalyshev, V. I.

TITLE: The Age of the Romashkino Series in the Southern Part of the Obshchiy Syrt and the Chkalov-Ural Region (K voprosu o vozraste romashkinskoy svity yuzhnoy chasti Obshchego Syrta i Chkalovskogo Priural'ya)

PERIODICAL: Izv. Komi fil. Vses. geogr. o-va, 1955, Nr 3, pp 7-10

ABSTRACT: Ostracods and starfish, characteristic of the Baskunchak series of Early Triassic age, have been identified in the Romashkino series, whereas discoveries of vertebrate skeletons point to a Middle Triassic age, or even to the lower part of the Late Triassic. The author suggests that there was a shifting of the region of sediment accumulation, and that this process produced lithologically similar groups of deposits having

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15-57-12-16785

The Age of the Romashkino Series (Cont.)

different ages, isolated in the Romashkino series.
Card 2/2

O. I. Zelenova

CHALYSHEV, V. I., Cand Geolog-Mineralog Sci (diss) -- "The stratigraphy and lithology of the Permian and Triassic lagoon-continental deposits of central Pechora". Syktyvkar, 1959. 25p p (Geol Inst of the Acad Sci USSR, Inst of Geol of the Komi Affiliate of the Acad Sci USSR), 150 copies (KL, No 15, 1960,133)

CHALYSHEV, V.I.

Permian and Triassic stratigraphy of lagoonal and continental sediments in the middle Pechora Valley. Trudy Komi fil. AN SSSR no.7:25-46 '59. (MIRA 13:11)
(Pechora Valley--Geology, Stratigraphic)

3(5) SOV/2o-126-5-46/69

AUTHOR: Chalyshev, V. I.

TITLE: Rhythms of Lower Permian Coal-bearing Sediments of the Middle Pechora (Ritmichnost' nizhnepermskikh uglenosnykh otlozheniy Sredney Pechory)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 5, pp 1o79 - 1o81 (USSR)

ABSTRACT: After recalling the discovery of the sediments mentioned in the title in 1957 (Ref 4), the author describes in detail their composition. The rhythms consist of sandstones, aleurolithes and limestones. Above these layers, coal or its analoga (coaly slate and black coaly loam) are deposited. The coal beds are not more than 2o cm thick, only in one of the rhythms a bed of 0.8 m was discovered. The rhythms are mostly covered by aleurolithes. All sediments covering the coal - perhaps except for the uppermost parts of the rhythms which consist of sandstones - are deposits of the relatively deep water. Doubtlessly they constitute the transgressive parts of the rhythms by representing the facies of the water section most distant from the coast. Only full, normal rhythms have a complete number of layers.

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Certain layers are often missing. The striking differences between the lower (regressive) and the upper (transgressive) parts are: 1) The regressive parts have a higher thickness. 2) Their color is brighter as a rule. 3) The layers of the regressive parts are poorly marked, irregular or missing; on the contrary, the rocks of the transgressive rhythms are fine, arranged in distinctly horizontal layers. 4) Calcareous concretions always occur in the regressive parts; in the transgressive parts, they are very rare, and are only present in the uppermost parts of the rhythms. 5) The quantity of flora and fauna, particularly their maintenance standard, is much higher in the transgressive parts. All this shows that the rhythms are of the Bassein type here. Finally, parallels with the Kuzbass (Refs 1,2) are drawn. Also in the Pechora-basin itself, the rhythms had not the same course in all places: they were synchronous and locally approximated to each other, but in the north-eastern part of the Pechora-basin and in the central Pechora, the rhythms were formed in a different way. Between the central Pechora and the Kuzbass, however, the similarity of the rhythm formation was quite high in spite of different ages and the distance. There are 5 Soviet

Rhythms of Lower Permian Coal-bearing Sediments of the Middle Pechora SOV/20-126-5-46/69

references.

ASSOCIATION: Komi filial Akademii nauk SSSR (Komi Branch of the Academy of Sciences,USSR)

PRESENTED: March 20, 1959, by N. M. Strakhov, Academician

SUBMITTED: March 18, 1959

Card 3/3

CHALYSHEV, Vasiliy Ivanovich; IVENSEN, Yu.P., doktor geologo-miner. nauk, otv. red.; TSVETKOV, N.V., red. izd-va; BOCHKEVER, V.T., tekhn. red.

[Stratigraphy and lithology of Permian and Triassic lagoonal and terrestrial deposits in central Pechora] Stratigrafiia i litologiia lagunno-kontinental'nykh otlozhenii permi i triasa Srednei Pechory. Moskva, Izd-vo Akad.nauk SSSR, 1961. 102 p. (MIRA 14:6)
(Pechora Valley—Geology, Stratigraphic)
(Pechora Valley—Petrology)

CHALYSHEV, V.I.

Boundary of Permian and Triassic sediments in the Ads'va Basin. Trudy Inst.geol. Komi fil. AN SSSR no.2:50-52 '62. (MIRA 15:7).
(Ads'va Valley--Geology, Stratigraphic)

CHALYSHEV, V.I.

A find of a stegocephalia's original teeth. Isv.Komi fil.Geog. ob-va SSSR no.7:119-121 '62. (MIRA 15:12)
(Bol'shaya Synya Valley--Teeth, Fossil)
(Stegocephali)

CHALYSHEV, V.I.

Marine Lower Triassic in the northern Ural region. Dokl. AN SSSR. 144 no.6:1340-1343 Je '62. (MIRA 15:6)

1. Institut geologii Komi filiala Akademii nauk SSSR. Predstavleno akad. A.L.Yanshinym.
(Ural Mountain region—Geology, Stratigraphic)

CHALYSHEV, V.I.

Discovery of raindrop imprints. Dokl.AN SSSR 145 no.1:179-180 Jl '62. (MIRA 15:7)

1. Institut geologii Komi filiala Akademii nauk SSSR. Predstavleno akademikom N.M.Strakhovym.
(Pay-Khoy Range--Geology)

CHALYSHEV, V.I.; VARYUKHINA, L.M.

Stratigraphy and spore-pollen complexes of Upper Tatarian and Triassic sediments in the Kolva arch. Trudy Inst.geol.Komi fil. AN SSSR no.3:78-96 '62. (MIRA 16:9)
(Kolva Valley (Komi A.S.S.R.)--Geology, Stratigraphic)
(Kolva Valley (Komi A.S.S.R.)--Palynology)

CHALYSHEV, V.I.

Stratigraphy of the Upper Permian and Triassic in the Northern Ural region. Biul.MOIP.Otd.geol. 38 no.3:45-59 My-Je '63. (MIRA 16:9)

CHALYSHEV, V.I.

Lower Triassic phosphorite-bearing sediments in the Pechora Valley portion of the Urals. Lit. i pol. iskop. no.4:124-126 Jl-Ag '64.
(MIRA 17:11)

1. Institut geologii Komi filiala AN SSSR, Syktyvkar.

SAVEL'YEVA, E.A.; CHALYSHEV, V.I.

Archaeological finds in the Kobra Basin. Izv. Komi fil. Geog. ob-va SSSR no.9:103-107 '64. (MIRA 18:5)

CHALYSHEV, V.I.; VARYUKHINA, L.M.

New data on the age of coal-bearing sediments of the Surakay Valley (Bashkiria). Biul. MOIP. Otd. geol. 39 no.3:67-70 My-Je '64. (MIRA 17:12)

CHALYSHEV, Vasiliy Ivanovich; VARYUKHINA, Liliya Mikhaylovna; MOLIN, Vladimir Afanas'yevich; PLOTNIKOV, M.A., kand. geol.-miner. nauk, otv. red.

[Boundary of Permian and Triassic red beds in the northern part of the cis-Ural region] Granitsa permi i triasa v krasnotsvetnykh otlozheniiakh Severnogo Priural'ia. Moskva, Nauka, 1965. 118 p. (MIRA 18:8)

124-58-9-9888

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 9, p 59 (USSR)

AUTHOR: Chalysheva, N. I.

TITLE: The Redistribution of Heat by Means of the Currents in the Sea of Japan (Pereraspredeleniye tepla techeniyami v Yaponskom more)

PERIODICAL: Tr. Gos. okeanogr. in-ta, 1957, Nr 35, pp 102-118

ABSTRACT: The heat distribution in the Sea of Japan effected by the warm current through the Tsushima Strait is clarified. The data utilized were gathered from hydrological observations, performed along standard latitudinal and longitudinal sections of the Sea during 1932-1935. The mean-velocity curves for the currents, for certain sections, are shown for a 25-200-m stratum; a map is provided showing the amplitudes of the semiannual and annual variation of the water temperature at the sea surface; other results of the analysis of the observations are presented. Velocity and temperature data were used in a computation of the heat advection; these computations show that the variations of the water temperature from year to year due to the advection may be very substantial (about 4° for that area). Throughout the year, a large part of the basin of the Sea of Japan is, in the mean,

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The Redistribution of Heat by Means of the Currents in the Sea of Japan

under the action of cold advection. This is the result of the predominance, in the course of a year, of northwesterly winds which carry cold air masses over the basin of the Sea of Japan. During the warm season (from June to November) a characteristic sharp increase occurs in the portion of the basin that is exposed to the advection of heat. The relative magnitude of the heat advection in the central part of the Sea attains its maximum in June and July (1.5-2°). In the course of a full year the relative magnitude of the advective heat losses varies more than the relative magnitude of the advective heat gains. The author indicates that the redistribution of the heat advection in the Sea of Japan cannot be calculated directly because of the paucity of available observations. In the section of the Sea adjacent to the shores of Japan, the advective temperature changes are moderate because of the northward flow of the current.

A. S. Sarkisyan

1. Ocean currents--Thermal properties 2. Sea of Japan--Thermal properties

Card 2/2

CHALYSHEVA, N.I.

Accuracy of permanent tide tables. Trudy GOIN no.46:50-64 '59.
(MIRA 13:5)
(Tides--Tables)

DUVANIN, A.I., doktor geograf.nauk; VIN'KOV, M.P.; CHALYSHEVA, N.I., kand. geograf.nauk; SOLOVEYCHIK, K.N.; DEYEVA, R.A., kand.geograf.nauk; MOISEYEV, I.N., red.; MIRONENKO, Z.I., red.; BRAYNINA, M.I., tekhn.red.

[Tide tables; waters of the Asian part of the U.S.S.R. and adjacent foreign areas] Tablitsy prilivov; vody Aziatskoi chasti SSSR i prilegaiushchikh zarubezhnykh raionov. Pt.1. [Tides in principal ports] Prilivy v osnovnykh portakh. Pt.2. [Corrections for auxiliary stations and harmonic tidal constants] Popravki dlia dopolnitel'nykh punktov i garmonicheskie postoiannye prilivov. Leningrad, Gidrometeoizdat, 1960. 191 p. (MIRA 14:7)

1. Zaveduyushchiy Otdelom schetno-analiticheskikh mashin Vychislitel'nogo tsentra mekhaniko-matematicheskogo fakul'teta Moskovskogo ordena Lenina gosudarstvennogo universiteta im. M.V.Lomonosova (for Vin'kov). 2. Dal'nevostochnyy nauchno-issledovatel'skiy gidrometeorologicheskiy institut (for Soloveychik).
(Tides—Tables)

CHALYSHEVA, N.I.

Indices of water masses. Izv. AN SSSR. Ser. geog. no.5:119-123 S-O '60. (MIRA 13:10)
(Ocean temperature)

CHALYSHEVA, N.I.

Calculation of tides in a nearshore zone. Trudy GOIN no.75:29-42 '64.
(MIRA 17:10)

L 23330-65 EWT(m)/EWA(d)/EWP(t)/EWP(b) JD/WB
ACCESSION NR: AP5001191 S/0125/64/000/012/0030/0037

AUTHOR: Kakhovskiy, N. I. (Candidate of technical sciences); Langer, N. A. (Candidate of technical sciences); Yushchenko, K. A. (Engineer); Chalyuk, G.I. (Eng.)

TITLE: Electrochemical properties of the weld compounds of ferritic-austenitic chromium-nickel steel of 21-5 type

SOURCE: Avtomaticheskaya svarka, no. 12, 1964, 30-37

TOPIC TAGS: welding compound, ferritic austenitic steel, chromium nickel steel, electrochemical property, steel, macrocell, steel welding

ABSTRACT: The electrochemical properties of the weld-compounds in steels were investigated, and it was found that they depend on the chemical composition of the welded seam, the grain size, and the steel properties resulting from the welding temperature, aggressiveness of the medium, and some other factors. In the boiling solution of 40% nitric acid, macrocells consisting of the base metal-seam and base metal-zone of thermal influence may be formed. If the joint differs little from the base metal, the corrosion resistance is determined by the

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L 23330-65
ACCESSION NR: AP5001191

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corrosion current in the macrocell base metal-zone of thermal influence. It was experimentally confirmed that the difference of the chemical composition and surfaces of ferritic and austenitic phases in the metal affects its structurally selective corrosion in nitric acid of higher concentration and temperature. Orig. art. has: 5 figures and 5 tables

ASSOCIATION: Institut elektrosvarki im. Ye. O. Patona AN UKrSSR (Institute of Electric Welding AN UKrSSR)

SUBMITTED: 02Mar64 ENCL: 00 SUB CODE: MM, GC

NR REF SOV: 011 OTHER: 001

Card 2/2

L 04666-67 EWT(m)/EWP(t)/ETI IJP(c) JD/HW/WB

ACC NR: AP6007107 SOURCE CODE: UR/0129/66/000/002/0029/0032

AUTHORS: Langer, N. A.; Yagupol'skaya, L. N.; Kakhovskiy, N. I.; Yushchenko, K. A.; Fartushnyy, V. G.; Chalyuk, G. I.

ORG: Institute of Electro-Welding im. Ye. O. Paton, AN UkrSSR (Institut elektrosvarki AN UkrSSR)

TITLE: Corrosion resistance of steel with low nickel content in aggressive media

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 2, 1966, 29-32

TOPIC TAGS: corrosion resistant alloy, stainless steel, chromium steel alloy, nickel containing alloy, molybdenum containing alloy

ABSTRACT: The effect of the chemical composition of stainless steel with low Ni content upon its corrosion resistance has been studied. The investigated steels were: OKh21N3T, OKh21N5T, OKh21N6M2T (I), Kh14G14N3T, and Kh17AG14. Corrosive media selected were: 0.5N iron chloride solution, 3% solution of sodium chloride, 20% nitric acid, and sea water. Steel I, which contains 21% Cr, 6% Ni, and 2% Mo, was found to be most resistant to pitting under the described conditions. In general, it was established that resistance of heterogeneous ferrito-austenitic stainless steel to pitting is secured by an increase in Cr content and the presence of Mo.

Card 1/2 UDC: 669.14.018.8:621.785

L 04666-67

ACC NR: AP6007107

Thus, it is possible to substitute for the chrome-nickel steels[14] of Kh18N10T[14] type by steels with a low Ni content in a variety of listed corrosive media. Orig. art. has: 3 tables and 3 figures.

SUB CODE: 11,07 SUBM DATE: none/ ORIG REF: 005/ OTH REF: 004

kh

Card 2/2

CHALYUK, S.M.

INDYCHENKO, N.I.; ZYABLITSEV, I.V.; TIMOSHENKO, N.M.; RATSENKO, N.P.; VIZHLYAK, V.G.; CHALYUK, S.M.; VALOSHINA, G.G.

Popular textbook on electric centralization ("Electric centralization of switches and signals" by A.A. Kazakov. Reviewed by N.I. Indychenko and others). Avtom., telem. i sviaz' 2 no.7:48 Jl '58. (MIRA 11:6)

1. Rabotniki Kiyevskoy distantsii signalizatsii i svyazi Yugo-Zapadnoy dorogi.

(Railroads—Signaling—Block system)
(Kazakov, A.A.)

CHALYUK, Ye.A., kand.sel'skokhoz.nauk

Sapropel as forage for horses; Trudy VNIIK no.17:145-152 '49.
(MIRA 16:3)

(Horses--Feeding and feeds) (Sapropels as feed)

CHALYUK, Ye. A.

"Utilization of the Protein of Hay-Oat Rations by Horses During Rest and Work," Sub. 26 Dec 47, Moscow Zooveterinary Inst.

Dissertations presented for degrees in science and engineering in Moscow in 1947.

SO: Sum.No.457, 18 Apr 55

CHALYUK, Ye. A.

"Use of Nitrous Matter of Hay-Oat Rations by Horses at Work," Konevodstvo, No 1, 1952

CHALYUK, YE. [A.]

USSR/Farm Animals. Horses. Q

Abs Jour: Ref Zhur-Biol., No 20, 1958, 92561.

Author : Taranov, M., Chalyuk, E., Mel'nikova, T.
Inst :
Title : Feeding Horses with Preserved Fodder.

Orig Pub: Konevodstvo, 1957, No 9, 39-41.

Abstract: Feeding horses with preserved alfalfa (mares with sucking colts) and preserved corn (work horses and young horses) increased the coefficient of nitrogen utilization in the cooked substances (by 4 to 6%) and the daily protein store (by 50 to 120 grams).

Card : 1/1

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MAGIDOV, G.; CHALYUK, Ye., kand. sel'skokhozyaystvennykh nauk

Corn silage in the feed ration of horses. Nauka i pered. op v sel'khoz 9 no.5:48-49 My '59. (MIRA 12:8)

1.Zaveduyushchim otdelom kormleniya Vsesoyuznogo nauchno-issledovatel'skogo instituta konevodstva (for Magidov).
(Corn (Maize)) (Draft horses--Feeding and feeds)

CHALYY, A. A.

1. KRAVCHENKO, P. I., GORDIYENKO, N. I., CHALYY, A. A.

2. USSR (600)

4. Fruit Culture - Nikopol' District (Dnepropetrovsk Province)

7, Ordzhonikidze Collective Farm orchard. Sad i og. no. 9, 1952.

9. Monthly List of Russian Accessions, Library of Congress, January, 1953. Unclassified.

CHALYY, A.A.; KUDRAVETS, G.V.; AMOSHA, A.I.

Flow sheet for preparing a new mine level under complex mining and geological conditions. Sbor. trud. Inst. gor. dela AN URSR no.13:26-31 '63 (MIRA 17:7)

CHALYY, A.A., inzh.

Conditions for determining the minimum volume of workings by fixing the size of their common depression. Izv.vys.ucheb.zav.;gor.zhur. 7 no.7:66-72 '64. (MIRA 17:10)

1. Donetskiy nauchno-issledovatel'skiy ugol'nyy institut. Rekomendovana kafedroy rudnichnoy ventilyatsii i tekhniki bezopasnosti Donetskogo politekhnicheskogo instituta.

CHALYY, A.T. (Kiyev)

Teaching drawing in the secondary school. Mat. v shkole no.6: 28-37 N-D '54. (MLRA 7:11)
(Geometrical drawing)

CHALYY, Aleksandr Trofimovich; SHCHUKIN, S.M., dotsent, retsenzent; VAL'TSGFER, V.L., dotsent, kand.tekhn.nauk, red.; MAYZVSKIY, V.V., inzh., red.

[Course in descriptive geometry] Kurs nachertatel'noi geometrii. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 278 p. (MIRA 12:10)

(Geometry, Descriptive)

CHALYY, A.T.; KROT, A.M.; YURCHENKO, P.M., red.; SHEVCHENKO, L.I., tekhn. red.

[Mechanical drawing; textbook for grades nine and ten] Cherchenie; uchebnik dlia 9 i 10 klassov. Kiev, Gos. uchebno-pedagog. izd-vo "Radians'ka shkola," 1961. 195 p. (MIRA 15:4)

(Mechanical drawing--Study and teaching)

CHALYY, Aleksandr Trofimovich; SHCHUKIN, S.M., dotsent, retsenzent; PAL'TSGEFER, V.L., kand.tekhn.nauk, dotsent, red.; RYKOVSKIY, A.I., inzh., red.

[Course in descriptive geometry] Kurs nachertatel'noi geometrii. Izd.2., ispr. Moskva, Mashgiz, 1962. 275 p. (MIRA 15:5)

(Geometry, Descriptive)

CHALYY, A.T.; SHCHUKIN, S.M., dots., retsenzent

[Course in descriptive geometry] Kurs nachertatel'noi geometrii. Izd.3., ispr. Moskva, Mashinostroenie, 1964. 278 p. (MIRA 18:4)

S/181/62/004/001/013/052
B125/B104

AUTHORS: Smirnov, A. A., Tikhonova, Ye. A., and Chalyy, A. V.

TITLE: Effect of lattice irregularities caused by the different atomic radii in ordered binary solutions upon the intensity of scattered X rays

PERIODICAL: Fizika tverdogo tela, v. 4, no. 1, 1962, 77 - 85

TEXT: In previous work (FTT, 3, 1238, 1961) the authors have derived the general formula

$$I_{sp.} = 8\pi^3 N_0 \left| \sum_{s=1}^{p} f_s e^{i\tau_s} e^{-\frac{B_s}{2}} \right|^2 \prod_{j=1}^{3} \sum_{g_j} \delta(\tau_j - 2\pi g_j). \qquad (1)$$

for the intensity of regularly reflected X rays. N_0 is the number of elementary cells in the ordered alloy, μ - number of lattice sites in the

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Effect of lattice irregularities ...

cells, g_j - integer ($j = 1,2,3,\ldots$), $\vec{q}$ - difference between the wave vectors of a scattered and of an incident wave, $\vec{h}_\kappa$ - radius vector from the first lattice site to the site κ of the same cell, $\gamma_j = \vec{q}\vec{a}_j, \vec{d}_j$ - fundamental vector of alloy lattice, $\bar{f}_\kappa$ - averaged atomic factor of lattice site κ, f_α - atomic factor of atoms of kind α, $p_\alpha^{(\kappa)}$ - probability of substitution of the lattice site κ by an atom α, n - number of different components in the alloy. M_κ indicates the weakening of regular reflection from lattice site κ. After a detailed study, the factor

$$F = \sum_{s=1}^{4} f_s e^{i(\vec{q}\vec{h}_s)} e^{-\frac{M_s}{2}} \qquad (14)$$

from Eq. (1) is represented as

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Effect of lattice irregularities ...

$$F_{\text{стр.}} = 4\bar{f}_0\left[1 - \frac{1}{2}\varepsilon^2 Q_q\left(c_A c_B - \frac{3}{16}\eta^2\right)\right] - \\ - \frac{1}{8}(f_A - f_B)\varepsilon^2(Q_q - 4Q_{1q})\left(\frac{1}{2}\eta + c_A - c_B\right)\eta^2; \quad (15),$$

where $\bar{f}_0 = c_A f_A + c_B f_B$. c_A and c_B are the concentrations of the components A and B. The Q's and Q_q's are found from

$$M_s = \sum_{\alpha=1}^{n}\sum_{\kappa'=1}^{k} p_\alpha^{(\kappa')} b_{\alpha\kappa'}^2 Q_q^{\kappa' s}, \quad (3)$$

$$Q_q^{\kappa' s} = \sum_{\rho_{\kappa' s}\neq 0} \frac{(q\rho_{\kappa' s})^2}{\rho_{\kappa' s}^6}, \quad (4)$$

taking into account the symmetries of a cubical face centered lattice. The $\vec{\rho}_{\kappa'\kappa}$ are the vectors connecting the sites κ' with the sites of the sublattice κ. $b_{\alpha\kappa}$ characterizes the lattice irregularities. The factor $4\bar{f}_0$

Card 3/4

Effect of lattice irregularities ...

agrees with formula (15) for F_{CTP} for the case of an unperturbed regular lattice. Consideration of irregularities leads to a dependence of F on concentration and on the long-range order. The dependence of the regularly reflected intensities on the long-range order as caused by the irregularities is explained. A possible relationship between the irregularity-induced increase in intensity of the fine-structure reflections and the long-range order is pointed out. There are 3 figures and 7 references: 5 Soviet and 2 non-Soviet. The reference to the English-language publication reads as follows: M. Born, R. D. Misra. Proc. Camb. Phil. Soc., 36, 466, 1940.

ASSOCIATION: Institut metallofiziki AN USSR Kiyev (Institute of Physics of Metals AS UkrSSR, Kiyev)

SUBMITTED: July 10, 1961

Card 4/4

L 52202-65 EWT(l)/EWG(v)/FCC/EEC(t)/T/EEC(b)-2 Pc-5/Pq-4/Pi-4 IJP(c) GW

ACCESSION NR: AP5017075 UR/0185/64/009/010/1102/1114

41
40
B

AUTHOR: Chalyy, O. V. (Chalyy, A. V.)

TITLE: Study of the structure of a turbid medium from data of a single light scattering

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 9, no. 10, 1964, 1102-1114

TOPIC TAGS: particle scatter, geometric optics, aerosol, optic diffusion 21

ABSTRACT: The author considers a possible variation of the theory of light 17 scattering and obtains, by means of the approximation of a single scattering, a formula for the dispersion function for aerosol particles by grade. This is identical to the basic formula in the method of "small angles of the coefficient of scattering" developed by K. S. Shifrin.

It is shown that one of the conditions for the validity of the method of "small angles of the coefficient of scattering" - the predominance of the diffraction effect of light scattering over the effect of light scattering by the law of geometric optics - is satisfied within the limits of the scattering angles determined for an almost-monodispersion aerosol. These limits can be determined from tables shown in the paper.

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ACCESSION NR: AP5017075

A formula is obtained for the dispersion function for particles by grade in the case of a scattering system the electrical properties of whose particles deviate slightly from the properties of the medium.

The variation of the theory studied makes it possible, in principle, to obtain an expression for the scattering function for aerosol particles by grade, taking into account double and higher-order light scattering.

Orig. art. has: 42 formulas, 3 tables.

ASSOCIATION: Kyyivs'kyy derzhuniversytet im. T. G. Shevchenka (Kiev State University)

SUBMITTED: 04Jan64 ENCL: 00 SUB CODE: OP

NO REF SOV: 004 OTHER: 002 JPRS

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L 58303-65 EWT(1) IJP(c)

ACCESSION NR: AP5010046 UR/0368/65/002/002/0167/0177 13 B

AUTHORS: Tolpygo, K. B.; Chalyy, A. V.

TITLE: Investigation of the structure of a scattering medium using data on multiple scattering of electromagnetic radiation 21

SOURCE: Zhurnal prikladnoy spektroskopii, v. 2, no. 2, 1965, 167-177

TOPIC TAGS: light scattering, electromagnetic radiation scattering, multiple scattering, scattering medium, distribution function, scattering indicatrix

ABSTRACT: The purpose of the investigation was to obtain data on the structure of a scattering medium from information concerning light scattering in it. Whereas earlier investigations by others assumed single scattering of light and confined themselves to a study of the scattering indicatrix at small angles, in the present investigation the authors present a more general analysis of the passage of electromagnetic radiation through a medium, when multiple scattering is also

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possible. To this end they solve the radiation transport equation for a semi-infinite scattering medium, and derive the distribution function of the scattering particles with respect to their dimensions from experimental data on the multiple scattering of the electromagnetic radiation. A solution is obtained for the case when the probability of scattering is specified by a solution of Mie problem. It is proposed to present numerical results in a future article. Original article has: 49 formulas

ASSOCIATION: None

SUBMITTED: 26May64 ENCL: 00 SUB CODE: OP

NR REF SOV: 006 OTHER: 000

Card 2/2

L 3146-66 EWT(1) IJP(c)

ACCESSION NR: AP5016049 UR/0368/65/002/005/0447/0460
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44,55

AUTHORS: Tolpygo, K. B.; Chalyy, A. V. 44,55

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B

TITLE: Structure of a scattering medium of finite thickness from data on multiple scattering electromagnetic radiation 21,44,55

SOURCE: Zhurnal prikladnoy spektroskopii, v. 2, no. 5, 1965, 447-460

TOPIC TAGS: light scattering, electromagnetic wave scattering, multiple scattering, transport equation, distribution function

ABSTRACT: This is a continuation of earlier work (ZhPS v. 1, 1965), in which the radiation transport equation was solved for a semi-infinite scattering medium, and in which information was obtained on the scattering-particle size distribution function from experimental data on multiple scattering of electromagnetic radiation. In the present paper the problem is solved for the case of a scattering medium of finite thickness. The calculation procedure is similar to that of the earlier paper, with allowance for the changed boundary conditions.

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ACCESSION NR: AP5016049 O

The particular case of a scattered medium in which the particle dimensions are small compared with the wavelength of the inside radiation is considered in an appendix. Orig. art. has: 54 formulas

ASSOCIATION: None

SUBMITTED: 11May64 ENCL: 00 SUB CODE: OP

NR REF SOV: 003 OTHER: 000

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L 21993-66 EWT(1) IJP(c) WW/GG

ACC NR: AP6006966 SOURCE CODE: UR/0368/66/004/002/0162/0169

34
33
B

AUTHOR: Chalyy, A. V.

21 44,55

ORG: none

TITLE: Study of the structure of the dispersing medium from the data on multiple light scattering (arbitrary direction of incident radiation)

SOURCE: Zhurnal prikladnoy spektroskopii, v. 4, no. 2, 1966, 162-169

TOPIC TAGS: light scattering, distribution function, monochromatic radiation, particle distribution

ABSTRACT: Elsewhere, the present author and K. B. Tolpygo (ZhPS, 2, 167 and 447, 1965) developed a method of finding the distribution function of scattering particles according to dimensions, employing experimental data on multiple scattering of electromagnetic radiation of a semi-infinite scattering medium. This method was extended to the case of a finite thick medium. The calculations were considerably simplified by the assumption that the radiation incident on the boundary of the medium is normal, and, consequently, the problems investigated are axisymmetric. The present article removes the limitation imposed by the earlier work. It is stipulated that on the front boundary z = 0 of the

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medium, in which there is no absorption, there is incident arbitrary-angle monochromatic radiation of the wavelength λ and intensity I_0:

$$I_{max} = I_0 \delta(\mu + |\mu_0|) \delta(\varphi - \varphi_0).$$

It was established elsewhere that $\mu_0 = \cos \delta_0$, where δ_0 is the angle calculated from the direction of the exterior normal to the front boundary of the scattering medium; φ_0 is the azimuth of incident radiation. The method of derivation is presented together with the results of the calculations. Author considers it his pleasant duty to express his gratitude to Prof. K. B. Tolpygo for constant interest in this work. Orig. art. has: 28 formulas.

SUB CODE: 20 / SUBM DATE: 03Jul64 / ORIG REF: 005

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